

#2
 RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/804,626

DATE: 03/30/2001
 TIME: 15:02:53

Input Set : A:\PTO.txt
 Output Set: N:\CRF3\03302001\I804626.raw

RECEIVED
 APR 11 2001
 TECH CENTER 1600/2900
 OIPE

3 <110> APPLICANT: Lobel, Leslie
 4 Lustbader, Joyce
 6 <120> TITLE OF INVENTION: EXPRESSION OF PROPERLY FOLDED AND SOLUBLE EXTRACELLULAR
 DOMAIN OF A
 7 GONADOTROPIN RECEPTOR
 9 <130> FILE REFERENCE: 0575/62259/JPW/SHS
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/804,626
 C--> 11 <141> CURRENT FILING DATE: 2001-03-09
 11 <160> NUMBER OF SEQ ID NOS: 8
 13 <170> SOFTWARE: PatentIn version 3.0
 15 <210> SEQ ID NO: 1
 16 <211> LENGTH: 1557
 17 <212> TYPE: DNA
 18 <213> ORGANISM: HOMO SAPIENS
 20 <400> SEQUENCE: 1
 21 atgagcgata aaattattca cctgactgac gacagttttg acacggatgt actcaaagcg 60
 23 gacggggcga tcctcgtcga tttctgggca gagtgggtgc gtccgtgcaa aatgatcgcc 120
 25 ccgattctgg atgaaatcgc tgacgaatat cagggcaaac tgaccgttgc aaaactgaac 180
 27 atcgatcaaa accctggcac tgcgccgaaa tatggcatcc gtggtatccc gactctgctg 240
 29 ctgttcaaaa acggtgaagt ggcggcaacc aaagtgggtg cactgtctaa aggtcagttg 300
 31 aaagagttcc tcgacgctaa cctggccggt tctggttctg gccatatgca ccatcatcat 360
 33 catcattctt ctggtctggt gccacgcggt tctggtatga aagaaaccgc tgctgctaaa 420
 35 ttcgaacgcc agcacatgga cagcccagat ctgggtaccg acgacgacga caaggccatg 480
 37 gctgatatcg gatccgaatt ccgagcgctg cgcgaggcgc tctgccctga gccctgcaac 540
 39 tgcgtgcccc acggcgccct gcgctgcccc ggccccacgg ccggtctcac tcgactatca 600
 41 cttgcctacc tccctgtcaa agtgatccca tctcaagctt tcagaggact taatgaggtc 660
 43 ataaaaattg aaatctctca gattgattcc ctggaaagga tagaagctaa tgcctttgac 720
 45 aacctcctca atttgtctga aatactgac cagaacacca aaaatctgag atacattgag 780
 47 cccggagcat ttataaatct tccccgatta aaatacttga gcatctgtaa cacaggcatc 840
 49 agaaagtttc cagatgttac gaaggtcttc tcctctgaat caaatttcat tctggaaatt 900
 51 tgtgataact tacacataac caccatacca ggaaatgctt ttcaagggat gaataatgaa 960
 53 tctgtaacac tcaaactata tggaaatgga tttgaagaag tacaaagtca tgcattcaat 1020
 55 gggacgacac tgacttcaat ggagctaaaag gaaaacgtac atctggagaa gatgcacaat 1080
 57 ggagccttcc gtggggccac agggccgaaa accttgata tttcttccac caaattgcag 1140
 59 gccctgccga gctatggcct agagtccatt cagaggctaa ttgccacgtc atoctattct 1200
 61 ctaaaaaaat tgccatcaag agaaacattt gtcaatctcc tggaggccac gttgacttac 1260
 63 cccagccact gctgtgcttt tagaaacttg ccaacaaaag aacagaattt ttcacattcc 1320
 65 atttctgaaa acttttccaa acaatgtgaa agcacagtaa ggaaagtgaa taacaaaaca 1380
 67 ctttattctt ccattgcttg tgagagtga ctgagtggct gggactatga atatggtttc 1440
 69 tgcttaccga agacaccccg atgtgctcct gaaccagatg cttttaatcc ctgtgaagat 1500
 71 attatgggcy tcgacaagct tgccggccgca ctcgagcacc accaccacca ccactga 1557
 74 <210> SEQ ID NO: 2
 75 <211> LENGTH: 518
 76 <212> TYPE: PRT
 77 <213> ORGANISM: Homo Sapiens
 79 <400> SEQUENCE: 2
 81 Met Ser Asp Lys Ile Ile His Leu Thr Asp Asp Ser Phe Asp Thr Asp
 82 1 5 10 15

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/804,626

DATE: 03/30/2001

TIME: 15:02:53

Input Set : A:\PTO.txt

Output Set: N:\CRF3\03302001\I804626.raw

```

84 Val Leu Lys Ala Asp Gly Ala Ile Leu Val Asp Phe Trp Ala Glu Trp
85          20          25          30
87 Cys Gly Pro Cys Lys Met Ile Ala Pro Ile Leu Asp Glu Ile Ala Asp
88          35          40          45
90 Glu Tyr Gln Gly Lys Leu Thr Val Ala Lys Leu Asn Ile Asp Gln Asn
91          50          55          60
93 Pro Gly Thr Ala Pro Lys Tyr Gly Ile Arg Gly Ile Pro Thr Leu Leu
94 65          70          75          80
96 Leu Phe Lys Asn Gly Glu Val Ala Ala Thr Lys Val Gly Ala Leu Ser
97          85          90          95
99 Lys Gly Gln Leu Lys Glu Phe Leu Asp Ala Asn Leu Ala Gly Ser Gly
100         100         105         110
102 Ser Gly His Met His His His His His Ser Ser Gly Leu Val Pro
103         115         120         125
105 Arg Gly Ser Gly Met Lys Glu Thr Ala Ala Ala Lys Phe Glu Arg Gln
106         130         135         140
108 His Met Asp Ser Pro Asp Leu Gly Thr Asp Asp Asp Asp Lys Ala Met
109 145         150         155         160
111 Ala Asp Ile Gly Ser Glu Phe Arg Ala Leu Arg Glu Ala Leu Cys Pro
112         165         170         175
114 Glu Pro Cys Asn Cys Val Pro Asp Gly Ala Leu Arg Cys Pro Gly Pro
115         180         185         190
117 Thr Ala Gly Leu Thr Arg Leu Ser Leu Ala Tyr Leu Pro Val Lys Val
118         195         200         205
120 Ile Pro Ser Gln Ala Phe Arg Gly Leu Asn Glu Val Ile Lys Ile Glu
121         210         215         220
123 Ile Ser Gln Ile Asp Ser Leu Glu Arg Ile Glu Ala Asn Ala Phe Asp
124 225         230         235         240
126 Asn Leu Leu Asn Leu Ser Glu Ile Leu Ile Gln Asn Thr Lys Asn Leu
127         245         250         255
129 Arg Tyr Ile Glu Pro Gly Ala Phe Ile Asn Leu Pro Arg Leu Lys Tyr
130         260         265         270
132 Leu Ser Ile Cys Asn Thr Gly Ile Arg Lys Phe Pro Asp Val Thr Lys
133         275         280         285
135 Val Phe Ser Ser Glu Ser Asn Phe Ile Leu Glu Ile Cys Asp Asn Leu
136         290         295         300
138 His Ile Thr Thr Ile Pro Gly Asn Ala Phe Gln Gly Met Asn Asn Glu
139 305         310         315         320
141 Ser Val Thr Leu Lys Leu Tyr Gly Asn Gly Phe Glu Glu Val Gln Ser
142         325         330         335
144 His Ala Phe Asn Gly Thr Thr Leu Thr Ser Leu Glu Leu Lys Glu Asn
145         340         345         350
147 Val His Leu Glu Lys Met His Asn Gly Ala Phe Arg Gly Ala Thr Gly
148         355         360         365
150 Pro Lys Thr Leu Asp Ile Ser Ser Thr Lys Leu Gln Ala Leu Pro Ser
151         370         375         380
153 Tyr Gly Leu Glu Ser Ile Gln Arg Leu Ile Ala Thr Ser Ser Tyr Ser
154 385         390         395         400
156 Leu Lys Lys Leu Pro Ser Arg Glu Thr Phe Val Asn Leu Leu Glu Ala

```

RAW SEQUENCE LISTING

DATE: 03/30/2001

PATENT APPLICATION: US/09/804,626

TIME: 15:02:53

Input Set : A:\PTO.txt

Output Set: N:\CRF3\03302001\I804626.raw

```

157                               405                               410                               415
159 Thr Leu Thr Tyr Pro Ser His Cys Cys Ala Phe Arg Asn Leu Pro Thr
160                               420                               425                               430
162 Lys Glu Gln Asn Phe Ser His Ser Ile Ser Glu Asn Phe Ser Lys Gln
163                               435                               440                               445
165 Cys Glu Ser Thr Val Arg Lys Val Asn Asn Lys Thr Leu Tyr Ser Ser
166                               450                               455                               460
168 Met Leu Ala Glu Ser Glu Leu Ser Gly Trp Asp Tyr Glu Tyr Gly Phe
169 465                               470                               475                               480
171 Cys Leu Pro Lys Thr Pro Arg Cys Ala Pro Glu Pro Asp Ala Phe Asn
172                               485                               490                               495
174 Pro Cys Glu Asp Ile Met Gly Val Asp Lys Leu Ala Ala Ala Leu Glu
175                               500                               505                               510
177 His His His His His
178                               515
180 <210> SEQ ID NO: 3
181 <211> LENGTH: 1551
182 <212> TYPE: DNA
183 <213> ORGANISM: Homo Sapiens
185 <400> SEQUENCE: 3
186 atgagcgata aaattattca cctgactgac gacagttttg acacggatgt actcaaagcg 60
188 gacggggcga tcctcgtcga tttctgggca gagtgggtgc gtccgtgcaa aatgatcgcc 120
190 ccgattctgg atgaaatcgc tgacgaatat cagggcgaac tgaccgttgc aaaactgaac 180
192 atcgatcaaa accctggcac tgcgcgaaa tatggcatcc gtggtatccc gactctgctg 240
194 ctgttcaaaa acggtgaagt ggcggcaacc aaagtgggtg cactgtctaa aggtcagttg 300
196 aaagagttcc tcgacgctaa cctggccggt tctggttctg gccatatgca ccatcatcat 360
198 catcattctt ctggtctggt gccacgcggt tctggtatga aagaaaccgc tgctgctaaa 420
200 ttcgaacgcc agcacatgga cagcccagat ctgggtaccg acgacgacga caaggccatg 480
202 gctgatatcg gatccgaatt cagggttttt ctctgccaaag agagcaaggt gacagagatt 540
204 ccttctgacc tcccaggagg tgccattgaa ctgaggtttg tcctcaccaa gcttcgagtc 600
206 atccaaaaag gtgcattttc aggatttggg gacctggaga aaatagagat ctctcagaat 660
208 gatgtcttgg aggtgataga ggcagatgtg ttctccaacc ttcccaaatt acatgaaatt 720
210 agaattgaaa aggccaaaca cctgctctac atcacccttg aggccttcca gaaccttccc 780
212 aaccttcaat atctgttaat atccaacaca ggtattaagc accttccaga tgttcacaaag 840
214 attcattctc tccaaaaggt tttacttgac attcaagata acataaacat ccacacaatt 900
216 gaaagaaatt ctttcgtggg gctgagcttt gaaagtgtga ttctatggct gaataagaat 960
218 gggattcaag aaatacacaa ctgtgcattc aatggaaccc aactagatgc agtgaatcta 1020
220 agcgataata ataatttaga agaattgcct aatgatgttt tccacggagc ctctggacca 1080
222 gtcattctag atatttcaag aacaaggatc cattccctgc cttagctatgg cttagaaaat 1140
224 cttaagaagc tgagggccag gtcgacttac aacttaaaaa agctgcctac tctggaaaag 1200
226 cttgtcgccc tcatggaagc cagcctcacc tatcccagcc attgctgtgc ctttgcaaac 1260
228 tggagacggc aaatctctga gcttcatcca atttgcaaca aatctatttt aaggcaagaa 1320
230 gttgattata tgactcaggc taggggtcag agatcctctc tggcagaaga caatgagtcc 1380
232 agctacagca gaggatttga catgacgtac actgagtttg actatgactt atgcaatgaa 1440
234 gtggttgacg tgacctgctc ccctaagcca gatgcattca acccatgtga agatatcatg 1500
236 ggggtcgaca agcttgcggc cgcactcgag caccaccacc accaccactg a 1551
239 <210> SEQ ID NO: 4
240 <211> LENGTH: 516
241 <212> TYPE: PRT

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/804,626

DATE: 03/30/2001

TIME: 15:02:53

Input Set : A:\PTO.txt

Output Set: N:\CRF3\03302001\I804626.raw

242 <213> ORGANISM: Homo Sapiens

244 <400> SEQUENCE: 4

```

246 Met Ser Asp Lys Ile Ile His Leu Thr Asp Asp Ser Phe Asp Thr Asp
247 1 5 10 15
249 Val Leu Lys Ala Asp Gly Ala Ile Leu Val Asp Phe Trp Ala Glu Trp
250 20 25 30
252 Cys Gly Pro Cys Lys Met Ile Ala Pro Ile Leu Asp Glu Ile Ala Asp
253 35 40 45
255 Glu Tyr Gln Gly Lys Leu Thr Val Ala Lys Leu Asn Ile Asp Gln Asn
256 50 55 60
258 Pro Gly Thr Ala Pro Lys Tyr Gly Ile Arg Gly Ile Pro Thr Leu Leu
259 65 70 75 80
261 Leu Phe Lys Asn Gly Glu Val Ala Ala Thr Lys Val Gly Ala Leu Ser
262 85 90 95
264 Lys Gly Gln Leu Lys Glu Phe Leu Asp Ala Asn Leu Ala Gly Ser Gly
265 100 105 110
267 Ser Gly His Met His His His His His Ser Ser Gly Leu Val Pro
268 115 120 125
270 Arg Gly Ser Gly Met Lys Glu Thr Ala Ala Ala Lys Phe Glu Arg Gln
271 130 135 140
273 His Met Asp Ser Pro Asp Leu Gly Thr Asp Asp Asp Asp Lys Ala Met
274 145 150 155 160
276 Ala Asp Ile Gly Ser Glu Phe Arg Val Phe Leu Cys Gln Glu Ser Lys
277 165 170 175
279 Val Thr Glu Ile Pro Ser Asp Leu Pro Arg Asn Ala Ile Glu Leu Arg
280 180 185 190
282 Phe Val Leu Thr Lys Leu Arg Val Ile Gln Lys Gly Ala Phe Ser Gly
283 195 200 205
285 Phe Gly Asp Leu Glu Lys Ile Glu Ile Ser Gln Asn Asp Val Leu Glu
286 210 215 220
288 Val Ile Glu Ala Asp Val Phe Ser Asn Leu Pro Lys Leu His Glu Ile
289 225 230 235 240
291 Arg Ile Glu Lys Ala Asn Asn Leu Leu Tyr Ile Thr Pro Glu Ala Phe
292 245 250 255
294 Gln Asn Leu Pro Asn Leu Gln Tyr Leu Leu Ile Ser Asn Thr Gly Ile
295 260 265 270
297 Lys His Leu Pro Asp Val His Lys Ile His Ser Leu Gln Lys Val Leu
298 275 280 285
300 Leu Asp Ile Gln Asp Asn Ile Asn Ile His Thr Ile Glu Arg Asn Ser
301 290 295 300
303 Phe Val Gly Leu Ser Phe Glu Ser Val Ile Leu Trp Leu Asn Lys Asn
304 305 310 315 320
306 Gly Ile Gln Glu Ile His Asn Cys Ala Phe Asn Gly Thr Gln Leu Asp
307 325 330 335
309 Ala Val Asn Leu Ser Asp Asn Asn Asn Leu Glu Glu Leu Pro Asn Asp
310 340 345 350
312 Val Phe His Gly Ala Ser Gly Pro Val Ile Leu Asp Ile Ser Arg Thr
313 355 360 365
315 Arg Ile His Ser Leu Pro Ser Tyr Gly Leu Glu Asn Leu Lys Lys Leu

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/804,626

DATE: 03/30/2001

TIME: 15:02:53

Input Set : A:\PTO.txt

Output Set: N:\CRF3\03302001\I804626.raw

```

316      370      375      380
318 Arg Ala Arg Ser Thr Tyr Asn Leu Lys Lys Leu Pro Thr Leu Glu Lys
319 385      390      395      400
321 Leu Val Ala Leu Met Glu Ala Ser Leu Thr Tyr Pro Ser His Cys Cys
322      405      410      415
324 Ala Phe Ala Asn Trp Arg Arg Gln Ile Ser Glu Leu His Pro Ile Cys
325      420      425      430
327 Asn Lys Ser Ile Leu Arg Gln Glu Val Asp Tyr Met Thr Gln Ala Arg
328      435      440      445
330 Gly Gln Arg Ser Ser Leu Ala Glu Asp Asn Glu Ser Ser Tyr Ser Arg
331      450      455      460
333 Gly Phe Asp Met Thr Tyr Thr Glu Phe Asp Tyr Asp Leu Cys Asn Glu
334 465      470      475      480
336 Val Val Asp Val Thr Cys Ser Pro Lys Pro Asp Ala Phe Asn Pro Cys
337      485      490      495
339 Glu Asp Ile Met Gly Val Asp Lys Leu Ala Ala Ala Leu Glu His His
340      500      505      510
342 His His His His
343      515
345 <210> SEQ ID NO: 5
346 <211> LENGTH: 2100
347 <212> TYPE: DNA
348 <213> ORGANISM: Homo Sapiens
350 <400> SEQUENCE: 5
351 atgaagcagc ggttctcggc gctgcagctg ctgaagctgc tgetgctgct gcagccgccg 60
353 ctgccacgag cgctgcgcga ggcgctctgc cctgagccct gcaactgcgt gcccgaaggc 120
355 gccctgcgct gccccggccc cagggccggg ctcactcgac tatcacttgc ctacctccct 180
357 gtcaaaagtg tcccatctca agctttcaga ggacttaatg aggtcataaa aattgaaatc 240
359 tctcagattg attccctgga aaggatagaa gctaattgcc ttgacaacct cctcaatttg 300
361 tctgaaatac tgatccagaa caccaaaaat ctgagataca ttgagcccgg agcattttata 360
363 aatcttcccc gattaaaata cttgagcatc tgtaacacag gcatcagaaa gtttccagat 420
365 gttacgaagg tcttctcctc tgaatcaa attcattctgg aaatttgtga taacttacac 480
367 ataaccacca taccaggaaa tgcttttcaa gggatgaata atgaatctgt aacactcaaa 540
369 ctatatggaa atggatttga agaagtacaa agtcatgcat tcaatgggac gacactgact 600
371 tcaactggagc taaaggaaaa cgtacatctg gagaagatgc acaatggagc cttccgtggg 660
373 gccacagggc cgaaaacctt ggatatttct tccaccaa atgcaggccct gccgagctat 720
375 ggcctagagt ccattcagag gctaattgcc acgtcatcct attctctaaa aaaattgcca 780
377 tcaagagaaa catttgtcaa tctcctggag gccacgttga cttaccccag ccaactgctgt 840
379 gcttttagaa acttgccaac aaaagaacag aatttttcac attccatttc tgaaaacttt 900
381 tccaaacaat gtgaaagcac agtaaggaaa gtgaataaca aaacacttta ttcttccatg 960
383 cttgctgaga gtgaactgag tggctgggac tatgaatatg gtttctgctt acccaagaca 1020
385 ccccgatgtg ctctgaacc agatgctttt aatccctgtg aagatattat gggctatgac 1080
387 ttccttaggg tcttgatttg gctgattaat attctagcca tcatgggaaa catgactgtt 1140
389 ctttttgttc tctgacaag tcgttacaaa cttacagtgc ctggttttct catgtgcaat 1200
391 ctctcctttg cagacttttg catggggctc tatctgctgc tcatagcctc agttgattcc 1260
393 caaaccaagg gccagtacta taaccatgcc atagactggc agacagggag tgggtgcagc 1320
395 actgctggct ttttcaactg attcgcaagt gaactttctg tctacacct caccgtcatc 1380
397 actctagaaa gatggcacac catcacctat gctattcacc tggacaaaa gctgcgatta 1440
399 agacatgcc a ttctgattat gcttggagga tggctctttt cttctcta at tgctatgttg 1500

```

VERIFICATION SUMMARY

DATE: 03/30/2001

PATENT APPLICATION: US/09/804,626

TIME: 15:02:54

Input Set : A:\PTO.txt

Output Set: N:\CRF3\03302001\I804626.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date